

DevOps Fundamentals

Course Description:

DevOps training is the starting point for an organization going on the DevOps journey. Improved workflows and faster deployment starts with a core understanding of DevOps fundamental concepts by anyone involved in an agile and/or DevOps team. The 3-day DASA DevOps Fundamentals course provides an extensive introduction to the core Agile DevOps principles covering the essential knowledge and skill competences that have been defined by the DevOps Agile Skills Association (DASA). This course is designed to provide the core education necessary to build your DevOps vocabulary and to understand its principles and practices. With the help of key DevOps concepts and terminology, real-life case studies, examples and interactive group discussions and extensive exercises in each module you will acquire a fundamental understanding of DevOps.

Learning Objectives:

Individuals certified at the DevOps Fundamentals level will have demonstrated their knowledge and understanding of the following:

- Core Concepts
 - Know the emergence of DevOps
 - Know the core concepts & principles of DevOps
 - Know what DevOps means for you as professional and for your organization
- Culture
 - Know the essence of a DevOps culture
 - Understand the key elements of a DevOps culture
 - Know the important aspects when creating a DevOps culture
- Organization
 - Know the Operational models of DevOps
 - Understand the need for autonomous teams
 - Understand the impact of DevOps on Architecture with respect to deployment
 - Understand governance within DevOps teams
- Processes
 - Understand Agile, Scrum and Kanban and how these practices relate to one another
 - Understand how ITSM processes relate to practices in a DevOps culture
 - Understand how lean is used to optimise processes
 - Know how to provide a Value Stream Map for a given process
 - Understand the way to harvest new and innovative ideas
- Automation
 - Know the impact of automation on Software Delivery processes
 - Understand the benefits and core principles of Continuous Delivery
 - Describe the key cloud principles for DevOps organisations
- Measurement & Improvement
 - Know the relevance of monitoring and logging DevOps

Course Outline

MODULE 1: COURSE INTRODUCTION

- Let's Get to Know Each Other
- Overview
- Course Learning Objectives
- Course Agenda
- Type of Activities
- Exam
- Course Book
- Technical Glossary
- Group Activity
- Module Summary

MODULE 2: DEVOPS INTRODUCTION

- Module Objectives
- Module Topics
- Emergence of DevOps
- Core Concepts of DevOps
- DevOps Agile Skills Association (DASA)
- Module Summary
- Module End Questions

MODULE 3: CULTURE

- Module Objectives
- Module Topics
- Introduction to a DevOps Culture
- Key Elements of DevOps
- Implementation of a DevOps Culture
- Module Summary
- Module End Questions

MODULE 4: ORGANIZATION

- Module Objectives
- Module Topics
- Organizational Model
- Autonomous Teams
- Architecting for DevOps
- Governance
- Module Summary
- Module End Questions

MODULE 5: PROCESSES

- Module Objectives
- Module Topics
 - Defining Agile, Scrum, and Kanban
 - DevOps in Relation to ITSM
 - The Scrum Approach in more Detail
 - Optimizing Processes Using Lean
 - Business Value Optimization and Business Analysis Using Story Mapping
 - Software Delivery Lifecycle in a DevOps Organization
- Module Summary
- Module End Questions

MODULE 6: AUTOMATION

- Module Objectives
- 6A Automation Concepts
 - Automation for Delivery of Software
 - Continuous Delivery Core Concepts
 - Continuous Delivery Automation Concepts
 - Continuous Delivery Automation Focus Topics
- 6B Data Center Automation
 - Emergence of Cloud Technology and Principles
 - Cloud Services Concepts in a DevOps Organization
 - Automated Provisioning Concepts
 - Platform Product Characteristics and Application Maturity
- Module Summary
- Module End Questions

MODULE 7: MEASURE AND IMPROVEMENT

- Module Objectives
- Module Topics
 - Importance of Measurement
 - Choosing the Right Metrics
 - Monitoring and Logging
- Module Summary
- Module End Questions
- EXAM PREPARATION GUIDE
 - Module Learning Objectives
 - Topics Covered in This Module
 - 1. Qualification Learning Objectives
 - 2. Learning Level of the Syllabus
 - 3. Certification
 - 4. Exam Instructions
 - 5. Tips for Taking Exam
- MOCK EXAM

Benefits of Taking This Course:

This course will help you understand:

- Why organizations are adopting “Need to adopt” DevOps practices from both the business and IT perspectives
- How to answer the question ‘What is DevOps?’
- DevOps values and principles
- How DevOps interfaces with other frameworks such as agile, lean and ITSM service management
- The characteristics of a DevOps culture
- DevOps organizational considerations including DevOps roles, teams and organizational structures
- Key DevOps practices
- Common DevOps automation practices and tools categories
- How to adopt a DevOps Culture

Examination:

- Exam Format:
 - Closed-book format
 - Web-Based
 - Participants may bring scratch paper
- Questions: 40 multiple choice questions
- Passing Score: 65%
- Exam Duration:
 - 60 minutes
 - 15 minutes extra time for non-native english speakers.
- Proctoring: Live / Webcam